

RECEIVED

MAY 2 2 2003

TECH CENTER 1600/2900

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Peng HUANG,

William PLUNKETT, and

Li FENG

Serial No.: 09,899,807

Filed: July 5, 2001

For: CANCER THERAPEUTICS INVOLVING

THE ADMINISTRATION OF 2-METHOXYESTRADIOL AND AN

AGENT THAT INCREASES

INTRACELLULAR SUPEROXIDE

ANION

Group Art Unit: 1642

hature

Examiner: K. A. Canella

Atty. Dkt. No.: UTSC:618US

DECLARATION OF PENG HUANG, WILLIAM PLUNKETT, AND LI FENG UNDER 37 C.F.R. §1.131

We, Peng Huang, William Plunkett, and Li Feng, hereby declare as follows:

- 1. We are the joint inventors of the subject matter claimed in the above-captioned patent application.
- 2. We are submitting this declaration to set forth facts demonstrating that the invention as reflected in the claims of the above referenced patent application was reduced to practice prior to June 23, 1999.
- 3. Attached as Exhibit A to this declaration is a copy of an invention disclosure form which

25288936.1

was prepared and executed prior to June 23, 1999.

- 4. Exhibit A demonstrates that the invention was reduced to practice.
- Reduction to practice is shown by a description of the results of our experiments, wherein we discovered that 2-methoxyestradiol, designated in the invention disclosure as MDA-CMP1, is an inhibitor of superoxide dismutase (SOD). See page 1, Exhibit A. In addition, we found that treatment of cancer cells with MDA-CMP1 causes an oxidative stress in the cells and triggers apoptosis in the cancer cells, with most prominent effects observed in human leukemia cells. See page 1, Exhibit A. Importantly, no apparent cytotoxic effect was seen in normal human lymphocytes from healthy donors incubated with MDA-CMP1, suggesting that certain cancer cells such as leukemia may depend more on SOD for survival than the normal cells. See page 1, Exhibit A. Thus, we discovered that inhibition of SOD by MDA-CMP1 provides a novel approach to cancer treatment with a high therapeutic selectivity. See page 1, Exhibit A. We also discovered that MDA-CMP1 would be useful in enhancing the effectiveness of radiotherapy and other anticancer agents, which generate free radicals from cells, for the treatment of a variety of solid tumors. See page 1-2, Exhibit A.
- 6. All work disclosed in the invention disclosure form was conducted in the United States of America.
- 7. In conclusion, the invention as reflected in the claims of the above-captioned patent application was reduced to practice prior to June 23, 1999.
- 8. We hereby declare that all statements made by our own knowledge are true and all statements made on information and belief are believed to be true and further that statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment under § 100 of Title 18 of the United States Code, and that such willful

false statements may jeopardize the validity of this application or any patent issued thereon.

Date 5/6/03

Date 5/6/03

Date 5/6/03